

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) Particles suitable for delivery from a particle-mediated delivery device, wherein the particles are obtainable by depositing a nucleic acid on inert metal carrier particles in the presence of

(i) a homopolymer of arginine of the formula (Arg)_x, wherein x is from 2 to 10, or a physiologically acceptable salt thereof; and

(ii) a metal ion chelating agent.

2. (Previously Presented) The particles of claim 1, wherein the inert metal carrier particles are selected from the group consisting of gold, tungsten, platinum and iridium particles.

3. (Previously Presented) The particles of claim 2, wherein the inert metal carrier particles are gold particles having a diameter from about 1 to 3 μm .

4. (Previously Presented) The particles of claim 1, wherein the nucleic acid encodes an antigen.

5. (Previously Presented) The particles of claim 4, wherein the antigen is selected from the group consisting of viral antigens, bacterial antigens and fungal antigens.

6. (Previously Presented) The particles of claim 1, wherein the nucleic acid encodes a therapeutic polypeptide.

7. (Previously Presented) The particles of claim 1, wherein the nucleic acid is DNA.

8. (Withdrawn) The particles of claim 1, wherein the nucleic acid condensing agent is a cationic polymer.

9. (Withdrawn) Particles according to claim 8 wherein the nucleic acid condensing agent is a polyamine.
10. (Withdrawn) Particles according to claim 9 wherein the polyamine is selected from the group consisting of protamines, spermidine, spermine, putrescine, and physiologically acceptable salts thereof.
11. (Withdrawn) Particles according to claim 9 wherein the polyamine is a polyarginine or a polylysine.
12. (Previously Presented) The particles of claim 1, wherein the homopolymer of arginine is (Arg)₄ or (Arg)₆.
13. (Previously Presented) The particles of claim 1, wherein the metal ion chelating agent is selected from the group consisting of ethylenediamine tetraacetic acid (EDTA) diethylenetriamine penta-acetic acid (DTPA), nitrilotriacetic acid (NTA), inositol hexaphosphate, tripolyphosphate, polyphosphoric acid, sodium succinate, potassium succinate, lithium succinate, sodium malate, potassium malate, lithium malate, desferal and ethylenediamine-di (o-hydroxy-phenylacetic) acid (EDDHA).
14. (Previously Presented) The particles of claim 1, wherein the depositing step is carried out in the presence of one or more disaccharide and/or trisaccharide sugars.
15. (Previously Presented) The particles of claim 14, wherein the sugar is selected from the group consisting of trehalose, sucrose, lactose and raffinose.
16. (Previously Presented) The particles of claim 15, wherein the sugar is a blend of sucrose and raffinose.
17. (Previously Presented) The particles of claim 1, wherein the depositing step is carried out in the presence of one or more salts.
18. (Previously Presented) The particles of claim 17, wherein the salt is selected from the group consisting of potassium acetate, calcium chloride, lithium chloride, sodium acetate, magnesium nitrate, sodium citrate, sodium phosphate and magnesium chloride.

19. (Previously Presented) The particles of claim 1, wherein the resultant particles are contacted with an antioxidant.

20. (Previously Presented) The particles of claim 19, wherein the antioxidant is selected from the group consisting of ethanol, vitamin A, vitamin C and vitamin E.

21. (Previously Presented) The particles of claim 1, wherein DNA is deposited on gold carrier particles in the presence of a polyarginine, EDTA and sucrose.

22. (Previously Presented) A dosage receptacle for a particle-mediated delivery device, the receptacle containing the particles of claim 1.

23. (Previously Presented) A particle mediated delivery device loaded with the particles of claim 1.

24. (Previously Presented) The particle mediated delivery device of claim 23 which is a needleless syringe.

25. (Previously Presented) A process for preparing the particles of claim 1, comprising

(i) depositing a nucleic acid on inert metal carrier particles in the presence of

(a) a homopolymer of arginine of the formula $(\text{Arg})_x$, wherein x is from 2 to 10, or a physiologically acceptable salt thereof; and

(b) a metal ion chelating agent; and

(ii) collecting the resultant particles.

26. (Previously Presented) The process of claim 25, wherein the homopolymer of arginine is added in step (i) to a mixture comprising the inert metal carrier particles and the nucleic acid.

27. (Previously Presented) The process of claim 25, wherein the inert metal carrier particles are selected from the group consisting of gold, tungsten, platinum and iridium particles.

28. (Previously Presented) The process of claim 27, wherein the inert metal carrier particles are gold particles having a diameter from about 1 to 3 μm .

29. (Previously Presented) The process of claim 25, wherein the nucleic acid encodes an antigen.

30. (Previously Presented) The process according to claim 29, wherein the antigen is selected from the group consisting of viral antigens, bacterial antigens and fungal antigens.

31. (Previously Presented) The process of claim 25, wherein the nucleic acid encodes a therapeutic polypeptide.

32. (Previously Presented) The process of claim 25, wherein the nucleic acid is DNA.

33-36. (Canceled)

37. (Currently Amended) The process according to claim ~~36~~ 25, wherein the ~~polyarginine~~ homopolymer of arginine is $(\text{Arg})_4$ or $(\text{Arg})_6$.

38. (Previously Presented) The process of claim 25, wherein the metal ion chelating agent is selected from the group consisting of ethylenediamine tetraacetic acid (EDTA) diethylenetriamine penta-acetic acid (DTPA), nitrilotriacetic acid (NTA), inositol hexaphosphate, tripolyphosphate, polyphosphoric acid, sodium succinate, potassium succinate, lithium succinate, sodium malate, potassium malate, lithium malate, desferal and ethylenediamine-di (o-hydroxy-phenylacetic) acid (EDDHA).

39. (Previously Presented) The process of claim 25, wherein step (i) is further carried out in the presence of one or more disaccharide and/or trisaccharide sugars.

40. (Previously Presented) The process according to claim 39, wherein the one or more sugars is selected from the group consisting of trehalose, sucrose, lactose and raffinose.

41. (Previously Presented) The process according to claim 40, wherein the one or more sugars is a blend of sucrose and raffinose.

42. (Previously Presented) The process of claim 25, wherein step (i) is further carried out in the presence of one or more salts.

43. (Previously Presented) The process according to claim 42, wherein the one or more salts is selected from the group consisting of potassium acetate, calcium chloride, lithium chloride, sodium acetate, magnesium nitrate, sodium citrate, sodium phosphate and magnesium chloride.

44. (Previously Presented) The process of claim 25, wherein the resultant particles from step (i) are contacted with an antioxidant.

45. (Previously Presented) The process according to claim 44, wherein the antioxidant is selected from the group consisting of ethanol, vitamin A, vitamin C and vitamin E.

46. (Previously Presented) The process according to claim 25, comprising the steps of: (i) precipitating DNA on inert gold particles in the presence of a polyarginine, EDTA and sucrose; and (ii) collecting the resultant particles.

47. (Withdrawn) A method of nucleic acid immunisation comprising-providing particles suitable for delivery from a particle-mediated delivery device, which particles are obtainable by precipitating a nucleic acid encoding an antigen on inert metal carrier particles in the presence of a nucleic acid condensing agent and a metal ion chelating agent; and (b) administering an effective amount of the particles of claim 1 to a subject.

48. (Withdrawn) A method of gene therapy comprising (a) providing particles suitable for delivery from a particle-mediated delivery device which particles are obtainable by precipitating a nucleic acid encoding a therapeutic polypeptide on inert metal carrier

particles in the presence of a nucleic acid condensing agent and a metal ion chelating agent;
and (b) administering an effective amount of the particles of claim 1 to a subject.

49. (Withdrawn) A method according to claim 47 or 48 wherein the inert metal carrier particles are selected from the group consisting of gold, tungsten, platinum and iridium particles.

50. (Withdrawn) A method according to claim 49 wherein the inert metal carrier particles are gold particles having a diameter from about 1 to 3 .mu.m.

51. (Withdrawn) A method according to any one of claims 47 to 50 wherein the nucleic acid is DNA.

52. (Withdrawn) A method according to any one of claims 47 to 51 wherein the nucleic acid condensing agent is a cationic polymer.

53. (Withdrawn) A method according to claim 52 wherein the nucleic acid condensing agent is a polyamine.

54. (Withdrawn) A method according to claim 53 wherein the polyamine is selected from the group consisting of protamines, spermidine, spermine, putrescine and physiologically acceptable salts thereof.

55. (Withdrawn) A method according to claim 53 wherein the polyamine is a polyarginine or a polylysine.

56. (Withdrawn) A method according to claim 55 wherein the polyarginine is (Arg)₄ or (Arg)₆.

57. (Withdrawn) A method according to any one of claims 47 to 56 wherein the metal ion chelating agent is selected from the group consisting of ethylenediamine tetraacetic acid (EDTA) diethylenetriamine penta-acetic acid (DTPA), nitrilotriacetic acid (NTA), inositol hexaphosphate, tripolyphosphate, polyphosphoric acid, sodium succinate, potassium succinate, lithium succinate, sodium malate, potassium malate, lithium malate, desferal and ethylenediamine-di (o-hydroxy-phenylacetic) acid (EDDHA).

58. (Withdrawn) A method according to any one of claims 47 to 57 wherein precipitation is carried out in the presence of one or more disaccharide and/or trisaccharide sugars.

59. (Withdrawn) A method according to claim 58 wherein the one or more sugars is selected from the group consisting of trehalose, sucrose, lactose and raffinose.

60. (Withdrawn) A method according to claim 59 wherein the one or more sugars is a blend of sucrose and raffinose.

61. (Withdrawn) A method according to any one of claims 47 to 60 wherein precipitation is carried out in the presence of one or more salts.

62. (Withdrawn) A method according to claim 61 wherein the one or more salts, is selected from the group consisting of potassium acetate, calcium chloride, lithium chloride, sodium acetate, magnesium nitrate, sodium citrate, sodium phosphate and magnesium chloride.

63. (Withdrawn) A method according to any one of claims 47 to 62 wherein the resultant particles are contacted with an antioxidant.

64. (Withdrawn) A method according to claim 63 wherein the antioxidant is selected from the group consisting of ethanol, vitamin A, vitamin C and vitamin E.

65. (Withdrawn) A method according to claim 47 comprising the steps of: (a) providing particles suitable for delivery from a particle-mediated delivery device, which particles have been obtained by precipitating DNA encoding an antigen on gold particles in the presence of a polyarginine, EDTA and sucrose; and (b) administering an effective amount of the particles to a subject.

66. (Withdrawn) A method according to claim 48 comprising the steps of: (a) providing particles suitable for delivery from a particle-mediated delivery device, which particles have been obtained by precipitating DNA encoding a therapeutic polypeptide on

gold particles in the presence of a polyarginine, EDTA and sucrose; and (b) administering an effective amount of the particles to a subject.

67. (Previously Presented) Particles, suitable for delivery from a particle mediated delivery device, which comprise inert metal carrier particles having on their surface

(i) a nucleic acid,

(ii) a homopolymer of arginine of the formula (Arg) x , wherein x is from 2 to 10, or a physiologically acceptably salt thereof, and

(iii) a metal ion chelating agent

68. (Previously Presented) The particles of claim 5, wherein the antigen is a human papilloma virus antigen.

69. (Previously Presented) The particles of claim 5, wherein the antigen is a HIV antigen.

70. (Previously Presented) The particles of claim 5, wherein the antigen is a HSV2 or HSV1 antigen.

71. (Previously Presented) The particles of claim 5, wherein the antigen is a hepatitis B virus antigen.